

FIG. 1

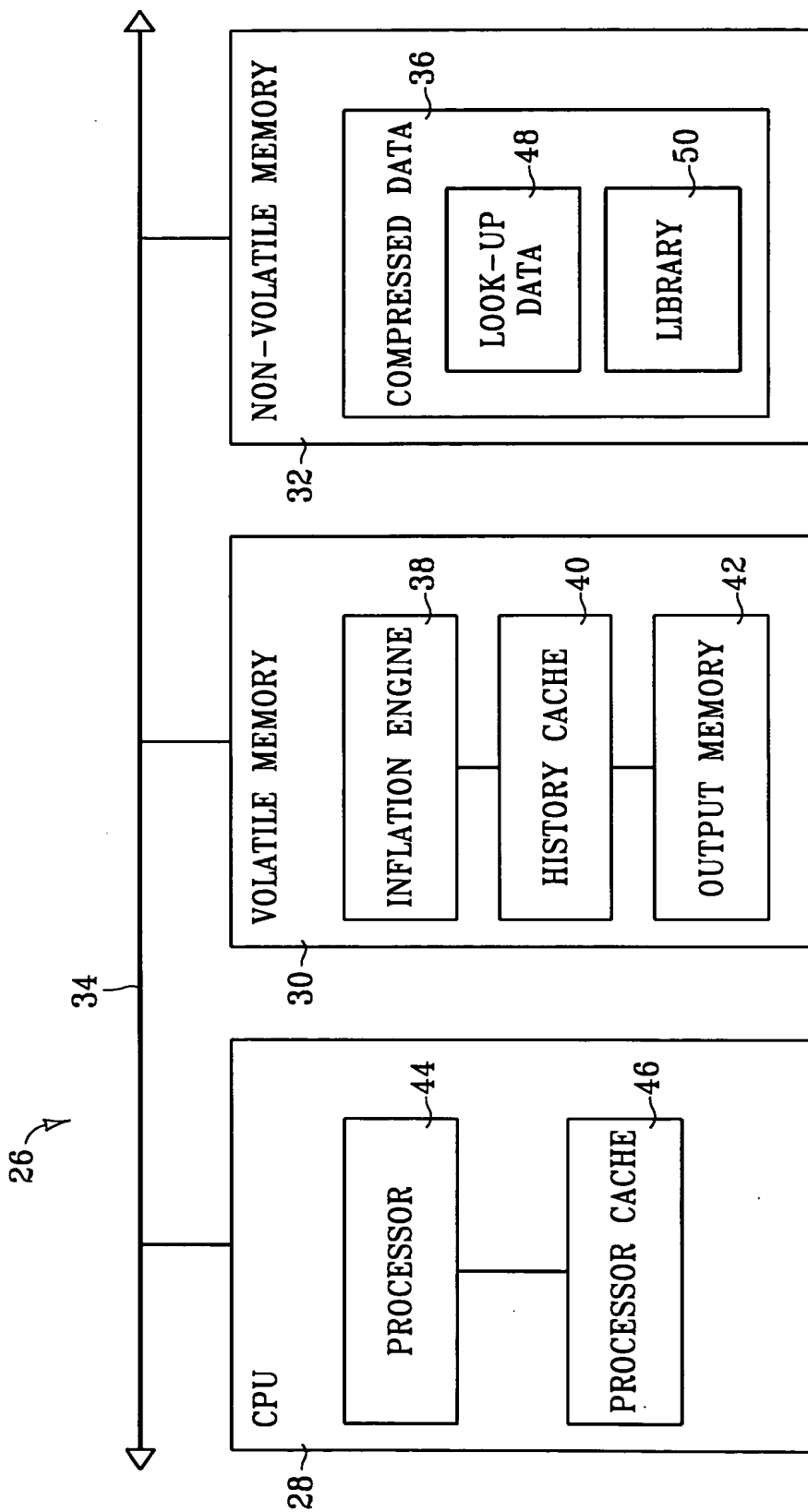


FIG. 2

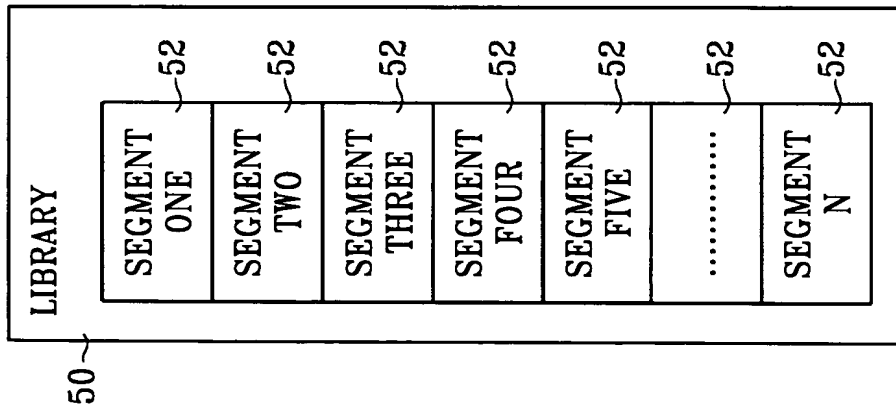


FIG. 3

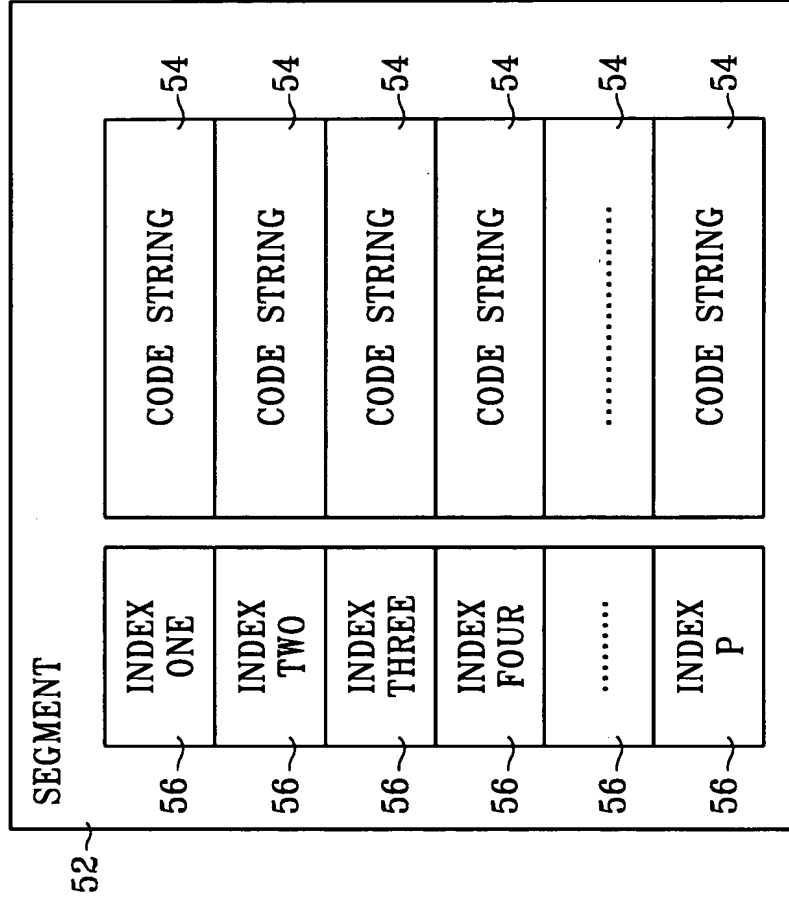


FIG. 4

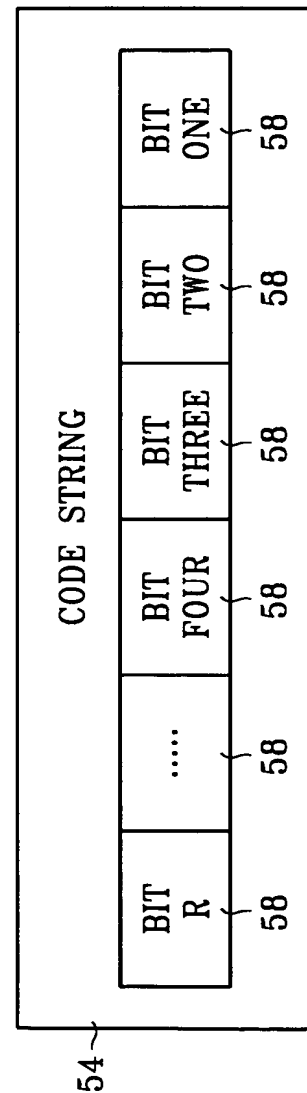


FIG. 5

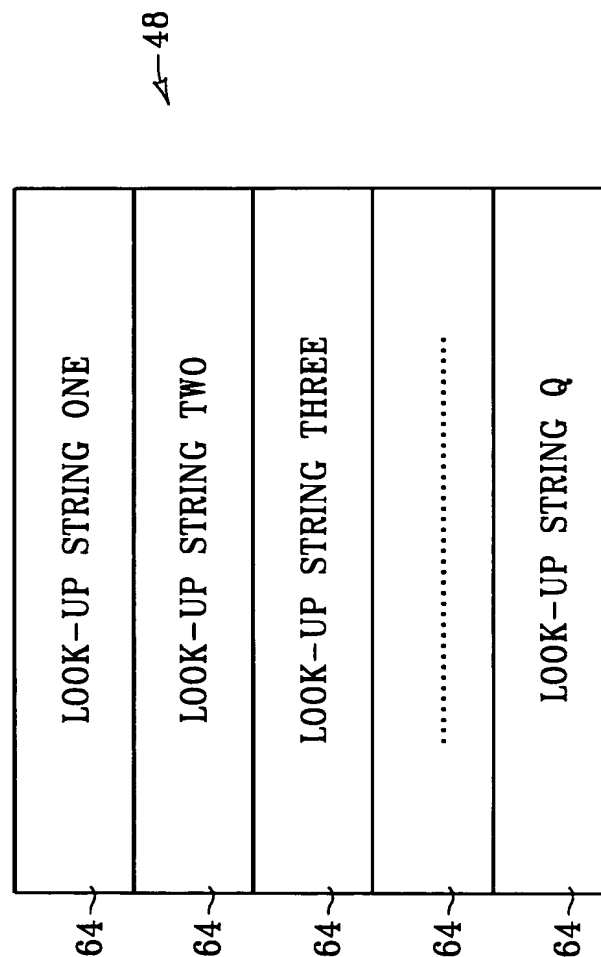


FIG. 7

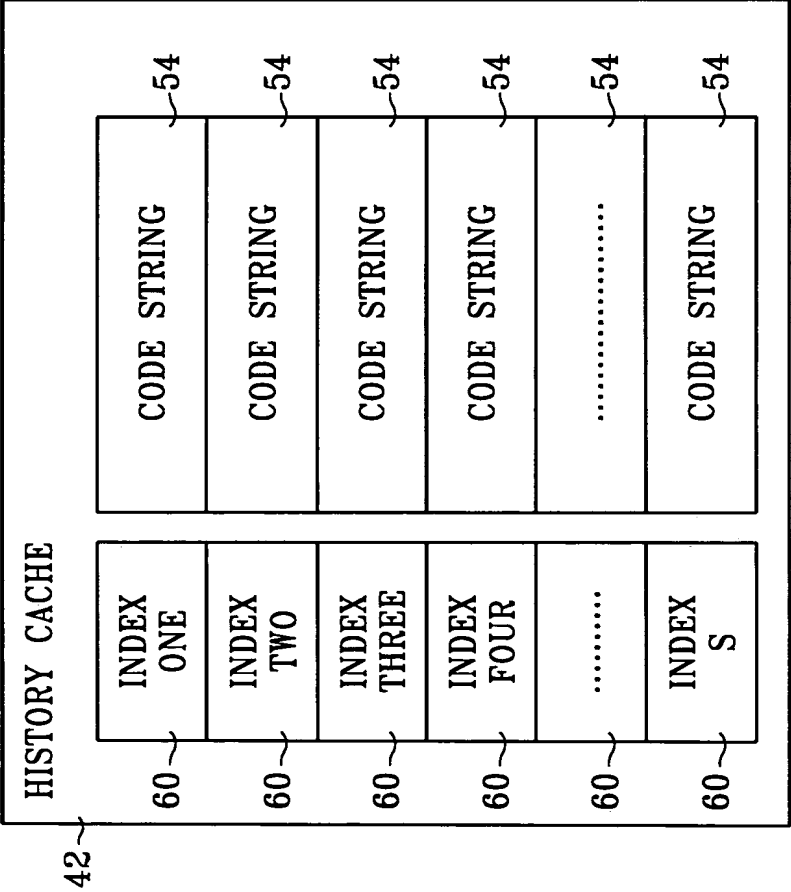


FIG. 6

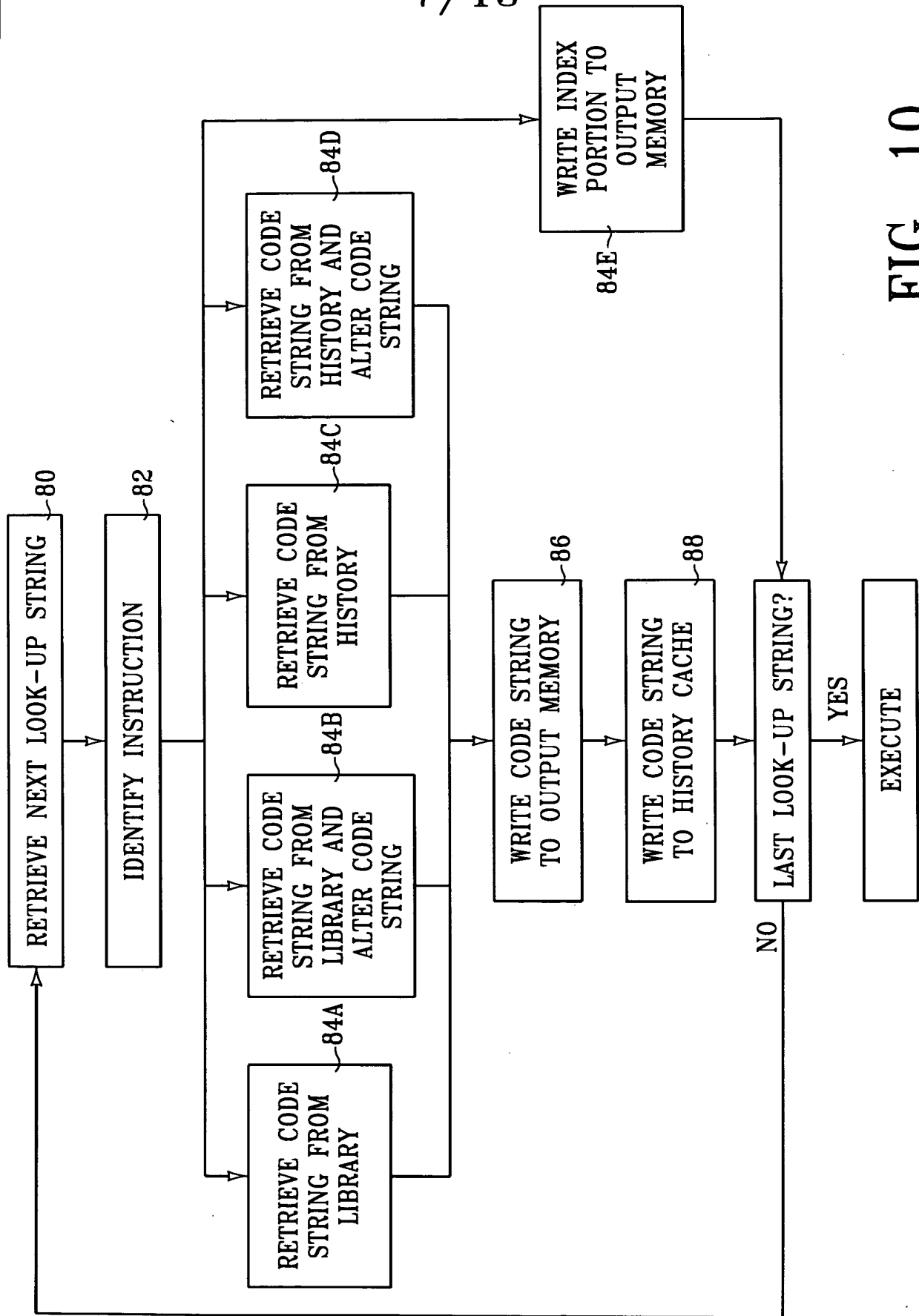


FIG. 10

| | | |
|----|-----------------|---|
| 52 | SEGMENT 0000 | 16 INDEXED POSITIONS 4 BIT INDEX |
| 52 | SEGMENT 0001 | 32 INDEXED POSITIONS 5 BIT INDEX |
| 52 | SEGMENT 0010 | 64 INDEXED POSITIONS 6 BIT INDEX |
| 52 | SEGMENT 0011 | 128 INDEXED POSITIONS 7 BIT INDEX |
| 52 | SEGMENT 0100 | 256 INDEXED POSITIONS 8 BIT INDEX |
| 52 | SEGMENT 0101 | 512 INDEXED POSITIONS 9 BIT INDEX |
| 52 | SEGMENT 0110 | 1024 INDEXED POSITIONS 10 BIT INDEX |
| 52 | SEGMENT 0111 | 2048 INDEXED POSITIONS 11 BIT INDEX |
| 52 | SEGMENT 1000 | 4096 INDEXED POSITIONS 12 BIT INDEX |
| 52 | SEGMENT 1001 | 8192 INDEXED POSITIONS 13 BIT INDEX |

FIG. 11

| | | | |
|----|------|-------------|----|
| 56 | 0000 | CODE STRING | 54 |
| 56 | 0001 | CODE STRING | 54 |
| 56 | 0010 | CODE STRING | 54 |
| 56 | 0011 | CODE STRING | 54 |
| 56 | 0100 | CODE STRING | 54 |
| 56 | 0101 | CODE STRING | 54 |
| 56 | 0110 | CODE STRING | 54 |
| 56 | 0111 | CODE STRING | 54 |
| 56 | 1000 | CODE STRING | 54 |
| 56 | 1001 | CODE STRING | 54 |
| 56 | 1010 | CODE STRING | 54 |
| 56 | 1011 | CODE STRING | 54 |
| 56 | 1100 | CODE STRING | 54 |
| 56 | 1101 | CODE STRING | 54 |
| 56 | 1110 | CODE STRING | 54 |
| 56 | 1111 | CODE STRING | 54 |

52

FIG. 12

50

642

FIG. 13

| | | | | | | |
|---|--|----------------------------|------|---|------------------------|-------------------|
| 64 | | LOOK-UP STRING | | 68 | | |
| Operation | | INSTRUCTION PORTION | | INDEX PORTION | | Total Bits |
| | | 66 | 1011 | 0000000000000000 through 1111111111111111 -plus- 00000 through 11111 | Position Bit | 23 |
| <u>Library</u> -Retrieve- -Alter S127- -Write- | | 1100 | | 0000000000000000 through 1111111111111111 -plus- 00000000 through 11111111 | Position Byte | 26 |
| | | | | | | |
| <u>Library</u> -Retrieve- -Alter 1 BYTE- -Write- | | 1101 | | 0000000000000000 through 1111111111111111 -plus- 00000000 through 11111111 | Position Byte | 26 |
| | | | | | | |
| <u>Library</u> -Retrieve- -Alter 2 BITS- -Write- | | 11100 | | 0000000000000000 through 1111111111111111 -plus- 00000 through 11111 -plus- 00000 through 11111 | Position Bit Bit | 29 |
| | | | | | | |

FIG. 14

| Operation | LOOK-UP STRING | | Total Bits |
|--|---------------------|--|------------------------------|
| | INSTRUCTION PORTION | INDEX PORTION | |
| <u>History</u> -Retrieve- -Write- | 11101 | 00000000000000000000 through 1111111111111111 -plus- 000 through 111 | Position Times Dup. 22 |
| <u>History</u> -Retrieve- -Duplicate- | 11110 | 00000 through 11111 | Times Dup. 10 |
| <u>History</u> -Retrieve- -Alter 1 BIT- -Write- | 11111 | 00000000000000000000 through 1111111111111111 -plus- 00000 through 11111 | Position Bit 24 |

FIG. 15A

FIG. 15B